appropriations must originate in the House of Representatives.

Comes now the Taft Bill, S. 2143, introduced by Senator Taft of Ohio with the blessings of Senators Smith and Ball. This measure proposes that the Federal Government lend its financial support to the forty-eight states, on a matching basis, for the provision of voluntary hospital and medical care insurance for medical indigents. Hearings on this bill will probably be held before Congress adjourns this July; in any event, word comes that witnesses for or against the Wagner-Murray-Dingell bills are to be asked by Senator Murray's committee to be prepared to testify not only on S. 1606 but also on S. 2143.

Even if these two measures are both lost, which now appears likely, the message is clear: Government will provide a system of medical care for the people if medicine does not do so. If Congress does not enact some form of legislation in 1946, it will be asked to do so again in 1947. Eventually there is nothing to look forward to but *some* new law on the books, be it compulsory health insurance or voluntary.

There is no choice between the two. The answer is clear. Only one element remains: Time is short.

YOUR JOURNAL

CALIFORNIA AND WESTERN MEDICINE has lived a long and successful life. It has weathered various changes of Association administration, has outlived several editors who have contributed to its success, and has even gone through changes of name. Now we come to a new fork in the road, a new point of departure from former expectations.

Inherent in the deliberations of the 1946 Annual Sessions of the C.M.A. was the desire to struggle free from former bounds and to achieve, in one leap, the long step to modern times, modern ideas. CALIFORNIA AND WESTERN MEDICINE is prepared to take this step.

Under the editorial supervision of the Chairman of the Editorial Board, and under the productive guidance of the central office staff, your journal proposes to modernize itself, to make such changes as seem desirable. Hope springs eternal and it is hoped that our readers will approve.

In the months to come, don't be surprised to see something new or something different. If a name is changed here, or a section there, we hope it is in the interest of providing our readers with something palatable if not succulent. Throughout this process, the one guiding force will be to furnish California physicians with a journal of which they may be proud, written and prepared in the best traditions of modern medical practice and presented in a form which hopes to be, at one time, interesting, instructive and attractive. Your comments are invited and will go a long way toward determining the ultimate form of your journal. The editors pledge themselves to this end, never forgetting that this is *your* publication.

THE DIAGNOSIS OF TUMORS

Since the turn of the century tumors have been diagnosed at much earlier stages, thus making obsolete most of the diagnostic criteria previously employed, and at the same time necessitating ever changing reorientation as regards our present diagnostic methods. Fortunately, due in no small part to the lay educational program of the American Cancer Society, patients in some localities are coming to their doctors with much smaller and earlier cancers than they did thirty years ago. The signs and symptoms of these smaller cancers are not those commonly described in text-books. The advanced cancer seen at the post-mortem table is not always the picture seen by the patient's family physician and by the surgical pathologist. Progress in the early recognition and detection of cancer is dependent upon the realization that in spite of "danger signals" there are no characteristic signs and symptoms which are pathognomonic of early cancer. A *complete physical examination* and various accessory diagnostic procedures are helpful and important. However, it must be emphasized that the only means of definitely establishing the diagnosis of cancer is by the *histological study* of suitable tissue under the microscope by a competent pathologist who is qualified in the problems of oncology.

In spite of the fact that cancer is being diagnosed earlier, there is still much regrettable and needless delay. With carcinoma of the large bowel, for example, this point is well emphasized in a recent study by Scarborough[1]. Even though the patients (private and clinic) in his series had had symptoms referable to the large bowel for an average of eight months before they received definite treatment, physicians allowed four and one-half months to elapse before establishment of a correct diagnosis. It is still commonplace for a patient with rectal cancer to present himself with the story of having already been examined and treated by from one to four doctors for "hemorrhoids."

Early detection and correct diagnosis of cancer are essential if the cancer problem is to be successfully attacked. A serious bottleneck in the attack is the shortage of competent pathologists. The laudable attempts by the American Cancer Society and other agencies to encourage the establishment of cancer clinics are greatly handicapped by this shortage. There is real danger that as a result of this shortage inadequately trained pathologists or other medical men will be entrusted with that most important of responsibilities,—the making of tissue diagnoses. The medical profession at large often fails to remember that the pathologist is a physician, practicing diagnostic medicine, and frequently the most important cog in the final diagnosis of tumors. This indifference, plus the fact that hospitals tend to "hire" pathologists on salaries contributes in no small part to the unsatisfactory shortage of competent tissue pathologists. There is at present little inducement for any capable physician to take up pathology, even as a temporary occupation; if

surgeons faced a similar salaried status in private hospitals, there would be a similar shortage of these specialists. To reiterate, the diagnosis of cancer often requires skill not only on the part of the pathologist but also on that of the tissue technicians whose responsibility it is to prepare the slides from which the diagnoses are made. Too often, histological sections are so poor they do not permit of a diagnosis. Insistence on the histological evaluation of the growth capacities and estimated radio-sensitivity of tumors, and the correlation of tumor structure with the clinical picture, has added another burden to the untrained pathologist. If he cannot differentiate between an endometrial hyperplasia and a corpus carcinoma how can he evaluate the lesion? Competent pathologists are not made to order in a few months.

If the benefits of popular education are to redound to the direct advantage of the patient, prompt and accurate diagnosis is necessary. Often this necessitates a biopsy. Careful clinical and experimental studies have shown that there is less hazard to a biopsy properly performed with a clean incision, than there is to repeated palpation.

Since tissue examination may be the most important single procedure in the establishment of a diagnosis of cancer, there are a number of working rules which should be followed. Prebiopsy x-rav irradiation and cauterization is usually inadvisable. Radical, mutilating operations should never be done for cancer without tissue diagnosis. In the diagnosis of Hodgkin's disease and other lympomatoid dyscrasias it is especially desirable that biopsy be performed prior to therapy. Otherwise, one may not be certain of the diagnosis, and the ultimate results of therapy may be difficult to judge. A fair-sized node should be removed, since the small "satellite" nodes near the periphery not infrequently show merely non-specific inflammatory changes, making it necessarv to subject the patient to the inconvenience of a second biopsy procedure. For purposes of biopsy it is preferable to secure non-irradiated lymph nodes. Lymph nodes should be sectioned and immediately preserved in proper fixative. The histological features of Hodgkin's disease cannot be identified in poorly prepared tissue.

Adjuncts in the diagnosis of cancer cover a multitude of useful procedures. Not infrequently, the diagnosis of tumor can be made by the examination of centrifuged sediment of body fluids and secretions. Punch and aspiration biopsy can be judiciously used in selected cases. Certain biologic tests, such as the Friedman and Ascheim-Zondek tests, on blood and urine may reveal the presence of hormone secreting tumors,—such as choriomas, malignant testicular tumors and granulosa cell tumors of the ovary. Phosphtase determinations (alkaline and acid) in cases with bone lesions may give valuable information in revealing or excluding metastatic carcinoma of the prostate.

Under suitable circumstances a biopsy can be safely done, and is usually essential for diagnosis. Its value far outweighs the danger to the patient. Its importance in directing the indication for and scope of surgery and irradiation is being more and more recognized by the medical profession. Its usefulness in the early detection and control of cancer will be tremendously expanded by your encouraging and development of and the support of trained pathologists.

REFERENCES

1. Scarborough, R. A.: Personal Communication of Studies made at Proctology Clinic, Stanford University School of Medicine, San Francisco.

EDITORIAL COMMENT†

"BLOCKING" ANTIBODIES

In 1921 Coca[1] of Cornell University reported that at times an immune serum prepared by repeated injection of one strain of B. influenzae into rabbits would agglutinate several others strains of the influenza bacillus but was inactive against the specific strain used for immunization. Tests showed that this negative reaction was due to the dominance in the immune serum of a specific inhibitory factor. This factor was found to be relatively unstable, and to disappear almost quantitatively by the end of 50 days storage with full release of its previously inhibited agglutinating function.

A somewhat similar observation was made at a later date, by Yanagihashi[2] of the Tohoku Imperial University, Japan. The Japanese investigator found that when rabbits are immunized by repeated injections with Forssman antigen or with alien red blood cells the production of serum hemolysins rises to a maximum by the end of about three weeks and then invariably falls. In extreme cases the terminal hemolytic titer is but one-hundredth of the fourth week maximum titer. He found that immune serums whose initial hemolytic titers had thus dropped were capable of strongly inhibiting the hemolytic action of other hemolytic antiserums.

To account for this phenomenon, Yanagihashi assumed that following injection of Forssman antigen or alien red blood cells the fixed cells of the injected animal liberate a specific hemolytic amboceptor. As soon as this amboceptor reaches a sufficiently high titer it functions as an alien colloid, giving rise to a secondary wave of specific antibodies or specific anti-amboceptors. On prolonged immunization the secondary anti-amboceptor became dominant, thus preventing hemolytic action. His studies of the thermostability and specific absorption of the inhibiting factor seemed to confirm this theory.

Tanagihashi's work was of theoretic interest at the time, since it offered a plausible explanation for a number of paradoxical phenomena reported by earlier investigators, and also offered a plau-

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.